

Re: current through FET

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2008-04/msg01214.html>

- *From:* D from BC
 - *Date:* Mon, 07 Apr 2008 16:02:04 -0700
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On Mon, 7 Apr 2008 15:11:41 -0700 (PDT), blanko <electrone2@xxxxxxxxxx> wrote:

I am currently using this FET to toggle the power to a device. The device wants 3.3V.

<http://www.zetex.com/3.0/pdf/ZXM61P03F.pdf>

I have pin 1 (gate) going to my microcontroller, pin 2(source) going to a 3.3V regulator, and pin 3 (drain) goes to the device I am powering. The 3.3V regulator can provide 800 mA of output current and I need all of that going through the FET to the device I am powering. The problem is that when I take a look at the datasheet (page 5 , 2nd graph) I will only be getting a few hundred milliamps.

Does anyone have a different part they can recommend or an easy way to modify my current setup to allow for a higher current?

Thanks!

-Mike

Assuming configured like the switching time test circuit on the datasheet...

$R_{dson} = 0.35\text{ohm}$...ok... Say 0.28V drop @ 800mA.
So load only gets ~3V @ 800mA

The transfer shows $I_d \sim 800\text{mA}$ @ $V_{gs} \sim -2.0\text{V}$.

Does that microcontroller output apply $>-2.0\text{V}$ outs with respect to the source?

Notice the on resistance spec. When $V_g = -5\text{V}$ then you get the 350ohm R_{dson} . At $V_g = -3\text{V}$, it's a crappy 1 ohm or more.

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Make sure V_g is right.

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